

0438: THE INFLUENCE OF TRANSPORTATION ON COLD ISCHAEMIA TIME FOLLOWING DECEASED-DONOR KIDNEY TRANSPLANTATION

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Introduction: Deceased donor kidneys are exchanged between centres in the UK according to HLA matching, length of waiting time and age match of recipient. A prolonged cold ischaemia time (CIT) is associated with poorer outcomes following kidney transplantation. The impact of transportation on CIT has not been fully analysed.

Methods: Data were collected prospectively from UK H&I laboratories, transplant centres and from the Transplant Registry between June 2011 and July 2012.

Results: Mean CIT in the 1649 kidney transplants identified was 13.9hrs. 7 centres transplanted 50 or fewer kidneys. There was a significant difference in mean CIT between centres ($p < 0.01$, range: 11.5–19.4hrs). Any travel between donor hospital and recipient centre increased mean CIT by 1.3hrs. Travel over 100miles was associated with an increase in mean CIT by 2.2hrs ($p < 0.001$), and inter-regional transfer with an increase by 2.0hrs ($p < 0.001$). 3% of kidneys were reallocated, with an associated increase in mean CIT by 5.0hrs. Reallocation outwith the same centre increased mean CIT by 6.7hrs. Air travel appeared to be able to compensate for some of the negative impact of long-distance travel on CIT.

Conclusions: Organs should be preferentially allocated to recipient centres within 100miles and within the same region. Air travel should be used for distant transfer.

0540: LIVER TRANSPLANTATION IN THE TREATMENT OF HEREDITARY HAEMORRHAGIC TELANGIECTASIA: A REVIEW OF IRISH CASES

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Introduction: Hereditary haemorrhagic telangiectasia (HHT), or Osler-Weber-Rendu Syndrome, is a genetic vascular condition characterised by the development of arteriovenous malformations which can affect most organs of the body.

Methods: Between 1994 and 2012 the National Liver Transplant Unit in St. Vincent's University Hospital carried out orthotopic liver transplantation on five patients with HHT. Before transplant, four of the patients were diagnosed as having HHT-associated liver disease.

Results: The four patients with confirmed liver involvement were all female; the dominant clinical presentations were: high-output cardiac failure in two, high-output cardiac failure with portal hypertension in one, and biliary disease in one. All four had a raised cardiac output (mean=12.1L/min, range=9.0–16.4L/min). The mean age at time of transplant was 48 years (range=33–70 years). All four are still alive, with a mean duration of follow-up of 79 months (range=5–230 months).

Conclusions: Post-transplant no severe complications were noted aside from an episode of acute cellular rejection in each of the four patients which was treated successfully with high-dose steroids. Patients reported an improvement in symptoms at follow-up. In conclusion, OLT is an important therapeutic option in patients with symptomatic HHT-associated liver disease. It is shown to improve symptoms while having a low level of mortality and morbidity.

1392: WHICH FACTORS INFLUENCE COMPENSATORY RENAL HYPERTROPHY FOLLOWING LIVE DONOR NEPHRECTOMY?

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Introduction: To investigate if compensatory renal hypertrophy following live donor nephrectomy is influenced by patient factors including age, gender, laterality, baseline GFR and approach (open or laparoscopic).

Methods: In a single centre, 205 patients underwent live donor nephrectomy from January 2005. Data was obtained from a prospectively collected electronic database. Patients underwent an isotope GFR scan preoperatively. Level of compensatory hypertrophy was calculated by using the formula $GFR = \text{pre-op isotope GFR} \times (\text{serumCr (pre-op)} / \text{serumCr (post-op)})$. Mean GFR was calculated at 3 days, 3 months, 6 months and 1

year. Univariate analysis was carried out for age, gender, laterality, approach and baseline GFR.

Results: In total 205 patients underwent live donor nephrectomy. Of these, 50 were laparoscopic. Mean age was 46 years. At the time of data collection, 144 patients had follow up to a year. Mean Isotopic GFR pre-operatively was 94.5 ml/min/1.732.

Early results appear to show increased compensatory renal hypertrophy in those who underwent open compared with laparoscopic nephrectomy (77.6%vs.69.5%, $p=0.05$), and in younger patients ($p < 0.05$).

Conclusions: Gender, laterality and baseline GFR has not significantly influenced compensation thus far. Mean GFR was estimated at 76.5% of the pre-donation GFR, and approach (open vs. laparoscopic) and age appears to influence the level. These are interim results in an ongoing project.

Trauma/Emergency surgery**0005: RATES OF AVOIDABLE READMISSIONS IN EMERGENCY SURGERY AT A DISTRICT GENERAL HOSPITAL**

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Introduction: Increasing pressure on hospital beds results in shorter inpatient stays that may be linked with increased readmission rates. Following a 25% cut in surgical beds at a busy district general hospital, we audited emergency surgery readmission rates.

Methods: Data were collected over six months (August 2012–February 2013). 120 readmissions were identified. A standard of 9% readmissions within 28 days of discharge was set based on Department of Health statistics for national general surgery readmissions (2008). Readmissions were classified as potentially avoidable or non-avoidable. Avoidable readmissions were further categorised by reason for readmission.

Results: Readmission rates were consistently below the audit standard (5.8%). However, 53.4% of readmissions with recurrent symptoms and 57% with complications of treatment were potentially avoidable. 33% of patients readmitted were not given a definitive diagnosis on initial admission. Missed diagnosis prevented 10% from receiving definitive treatment on first admission. Significant avoidable causes included incomplete treatment of infection, lack of definitive treatment of gallstones, and mismanagement of post-operative pain. Older patients were more likely to be readmitted and readmission within 48 hours was most common.

Conclusions: Readmissions may be predicted and potentially avoided. Timely follow-up, urgent-elective surgical treatment and appropriate antibiotic and analgesia prescribing may reduce readmission.

0029: A SNAPSHOT AUDIT OF THE PRESENCE OF CONSULTANTS DURING HIGHER RISK EMERGENCY LAPAROTOMIES AND VASCULAR OPERATIONS

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Introduction: The outcomes of emergency surgery are under increasing scrutiny. The Royal College of Surgeons have described the provision of emergency surgical care as “suboptimal” and “institutionally neglected” recommending assessment of the risk of mortality pre-operatively with increased consultant input for higher risk patients¹.

Methods: We performed a random snapshot audit of emergency laparotomies and vascular operations at our unit over a ten-week period (April–June 2013). Each patient's peri-operative mortality risk was calculated using P- or V-POSSUM. Performance was compared against the college recommendation that a Consultant Surgeon and Consultant Anaesthetist should be present for an operation where predicted mortality risk exceeds 5% (higher risk operation).

Results: Forty-one operations were audited (28 emergency laparotomies and 13 emergency vascular operations) from a total of 79 operations performed. Predicted mortality was greater than 5% for 29 (71%) operations. A Consultant Surgeon and Consultant Anaesthetist were present in 22 (76%) and 18 (62%) operations respectively.

Conclusions: This audit demonstrates that for higher risk operations, the presence of consultants varied according to time of day and across specialties. The calculation of predicted mortality risk should be undertaken in all patients undergoing emergency surgery to aid identification of higher risk patients.